Claims

1. A method of producing an immunoglobulin constant region, comprising:

transforming a prokaryotic cell with a recombinant expression vector including a nucleotide sequence encoding an *E. coli*-derived signal sequence and a nucleotide sequence encoding an immunoglobulin constant region;

culturing a resulting transformant; and

isolating and purifying the immunoglobulin constant region expressed by the transformant.

2. The method according to claim 1, wherein the immunoglobulin constant region is selected from the group consisting of constant regions from IgG, IgA, IgM, IgE, IgD, and combinations and hybrids thereof.

3. The method according to claim 2, wherein the IgG is selected from the group consisting of constant regions from IgG1, IgG2, IgG3, IgG4, and combinations and hybrids thereof.

4. The method according to claim 3, wherein the immunoglobulin constant region is an IgG4 constant region.

5. The method according to claim 4, wherein the

immunoglobulin constant region is a human aglycosylated IgG4 constant region.

6. The method according to claim 1, wherein the immunoglobulin constant region is composed of one to four domains selected from the group consisting of C_H1, C_H2, C_H3, C_H4 and C_L domains.

7. The method according to claim 6, wherein the immunoglobulin constant region further comprises a hinge region.

8. The method according to claim 1, wherein the recombinant expression vector comprises a nucleotide sequence encoding a heavy chain constant region and a nucleotide sequence encoding a light chain constant region.

9. The method according to claim 1, wherein the immunoglobulin constant region has an amino acid sequence represented by SEQ ID NO. 21, 22, 23, 24, 25, 27, 29, 30, 34 or 35.

10. The method according to claim 1, wherein the *E. coli*-derived signal sequence is a signal sequence selected from the group consisting of alkaline phosphatase, penicillinase, Ipp, heat-stable enterotoxin II, LamB, PhoE,

PelB, OmpA and maltose binding protein.

11. The method according to claim 10, wherein the heat-stable enterotoxin II signal peptide has an amino acid sequence represented by SEQ ID NO. 36, 37, 38, 39, 40, 41, 42, 43, 44, 45 or 46.

12. The method according to claim 1, wherein the recombinant expression vector is pSTIIG1CH1_3, pSTIIdCG1Fc, pSTIIdCG1SFc, pSTIIdCG1SFFc, pSTIIG1Mo, pSTIIdCG2Fc, pSTIIdCG4Fc, pSTIIG4CH1_3, pSTIIG4Mo, or pSTIIG4H_K.

13. The method according to claim 1, wherein the transformant is *E. coli* BL21/pSTIIG1CH1_3(HM10935), BL21/pSTIIdCG1Fc (HM10927), BL21/pSTIIdCG1SFc (HM10928), BL21/pSTIIdCG1SFFc (HM10929), BL21/pSTIIG1Mo (HM10930), BL21/pSTIIdCG2Fc (HM10936), BL21/pSTIIdCG4Fc (HM10932), BL21/pSTIIG4CH1_3(HM10931), BL21/pSTIIG4Mo (HM10933), or BL21/pSTIIG4H_K (HM10934).

14. The method according to claim 1, wherein the transformant is *E. coli*.

15. An immunoglobulin constant region prepared by the method of claim 1.